

SYSTEM **P**LANNING & **A**NALYSIS **R**EPORT

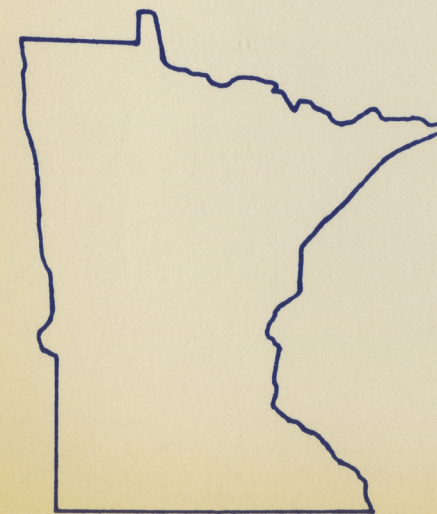
S-89

T.H. 36
T.H. 61 TO T.H. 120

S.P. 6211-17

MARCH, 1972

PREPARED BY
OFFICE OF SYSTEM PLANNING



**MINNESOTA
DEPARTMENT
OF HIGHWAYS**

DEPARTMENT HIGHWAY-Statewide Planning
Room 807 Ext. 3158

STATE OF MINNESOTA
Office Memorandum

TO : Paul G. Velz
Road Design Engineer

DATE: March 22, 1972

FROM : Morris Gildemeister, Chief
Statewide Planning Section

SUBJECT: T.H. 36 from T.H. 61 to T.H. 120
S.P. 6211-17
System Planning & Analysis Report S-89

R. T. Peterson requested the vehicle type distributions for Alternates A and B in SPAR M-86. The resulting contents of the attached report are as follows.

Page	Contents
1	Transmittal letter.
2	Project location shown on statewide work map.
3, 4, 5	Vehicle type distributions for Alternate A.
6	Alternate A Map with 1985 ADT.
7, 8, 9	Vehicle type distributions for Alternate B.
10	Alternate B Map with 1985 ADT.
11	Report preparation described.

Morris Gildemeister

Morris Gildemeister, Chief
Statewide Planning Section

MOH

STATE OF MINNESOTA
DEPARTMENT OF HIGHWAYS
WORK MAP



TRAFFIC ESTIMATE DATA

DESIGN YEAR 1985 PART 1 OF 3

FOR

T.H. 36 S.P. 6211-17 LENGTH -- MILES
COUNTY Ramsey LOCATION T.H. 61 to T.H. 120

BASED ON

1985 ADT FROM TRAFFIC ANALYSIS UNIT

SHOWING

TOTAL ADT ON SEGMENTS 1 THROUGH 11 AS
DEFINED ON ATTACHED INDEX MAP on page 6 for Alternate A

VEHICLE # TYPE	SEGMENT NUMBER										
	1	2	3	4	5	6	7	8	9	10	11
0	16228	2691	1202	7925	671	25632	62974	51444	5021	1836	12232
1	394	55	49	140	24	514	952	732	134	69	486
2	114	12	12	26	4	126	122	78	17	6	56
3	26	1	4	5	--	28	142	126	19	4	46
4	48	2	10	19	--	62	316	262	43	4	78
5	88	5	20	25	--	88	838	758	57	2	93
6	42	4	3	10	1	50	56	40	9	9	64
TOTAL ADT	16940	2770	1300	8150	700	26500	65400	53440	5300	1930	13060
TOTAL H. COMM. ADT	712	79	93	225	29	368	2426	1996	279	94	828
TOTAL DHV											
DIRECTIONAL DISTRIBUTION											

* VEHICLE TYPE CODE

- 0= PASSENGER CARS AND 4 TIRE TRUCKS
1= SINGLE UNIT-2 AXLE-6 TIRE TRUCKS
2= SINGLE UNIT-3 AXLE TRUCKS
3= TRACTOR-TRUCK OR SEMI-TRAILER- 3 AXLES
- 4= TRACTOR-TRUCK OR SEMI-TRAILER - 4 AXLES
5= TRACTOR-TRUCK OR SEMI-TRAILER - 5 AXLES
6= BUSES AND TRUCKS WITH TRAILERS

TRAFFIC ESTIMATE DATA

DESIGN YEAR 1985 PART 2 OF 3

FOR

T.H. 36 S.P. 6211-17 LENGTH -- MILES
COUNTY Ramsey LOCATION T.H. 61 to T.H. 120

BASED ON

1985 ADT FROM TRAFFIC ANALYSIS UNIT

SHOWING

TOTAL ADT ON SEGMENTS 12 THROUGH 22 AS
DEFINED ON ATTACHED INDEX MAP on page 6 for Alternate A

VEHICLE # TYPE	SEGMENT NUMBER										
	12	13	14	15	16	17	18	19	20	21	22
0	10654	1768	45074	7616	20030	32632	3775	37392	7236	21634	24874
1	440	140	602	154	260	440	84	462	145	436	496
2	50	34	56	8	136	180	24	88	15	58	54
3	40	2	96	12	18	30	2	76	9	24	30
4	68	4	184	25	42	52	6	146	8	28	34
5	84	4	648	121	128	226	20	446	22	68	78
6	64	48	40	14	86	140	39	90	15	52	34
TOTAL ADT	11400	2000	46700	7950	20700	33700	3950	38700	7450	22300	25600
TOTAL H. COMM. ADT	746	232	1626	334	670	1068	175	1308	214	666	726
TOTAL DHV											
DIRECTIONAL DISTRIBUTION											

* VEHICLE TYPE CODE

- 0= PASSENGER CARS AND 4 TIRE TRUCKS
1= SINGLE UNIT-2 AXLE-6 TIRE TRUCKS
2= SINGLE UNIT-3 AXLE TRUCKS
3= TRACTOR-TRUCK OR SEMI-TRAILER- 3 AXLES
- 4= TRACTOR-TRUCK OR SEMI-TRAILER - 4 AXLES
5= TRACTOR-TRUCK OR SEMI-TRAILER - 5 AXLES
6= BUSES AND TRUCKS WITH TRAILERS

TRAFFIC ESTIMATE DATA

DESIGN YEAR 1985 PART 3 OF 3

FOR

T.H. 36 S.P. 6211-17 LENGTH --- MILES

COUNTY --- LOCATION ---

BASED ON

1985 ADT FROM TRAFFIC ANALYSIS UNIT

SHOWING

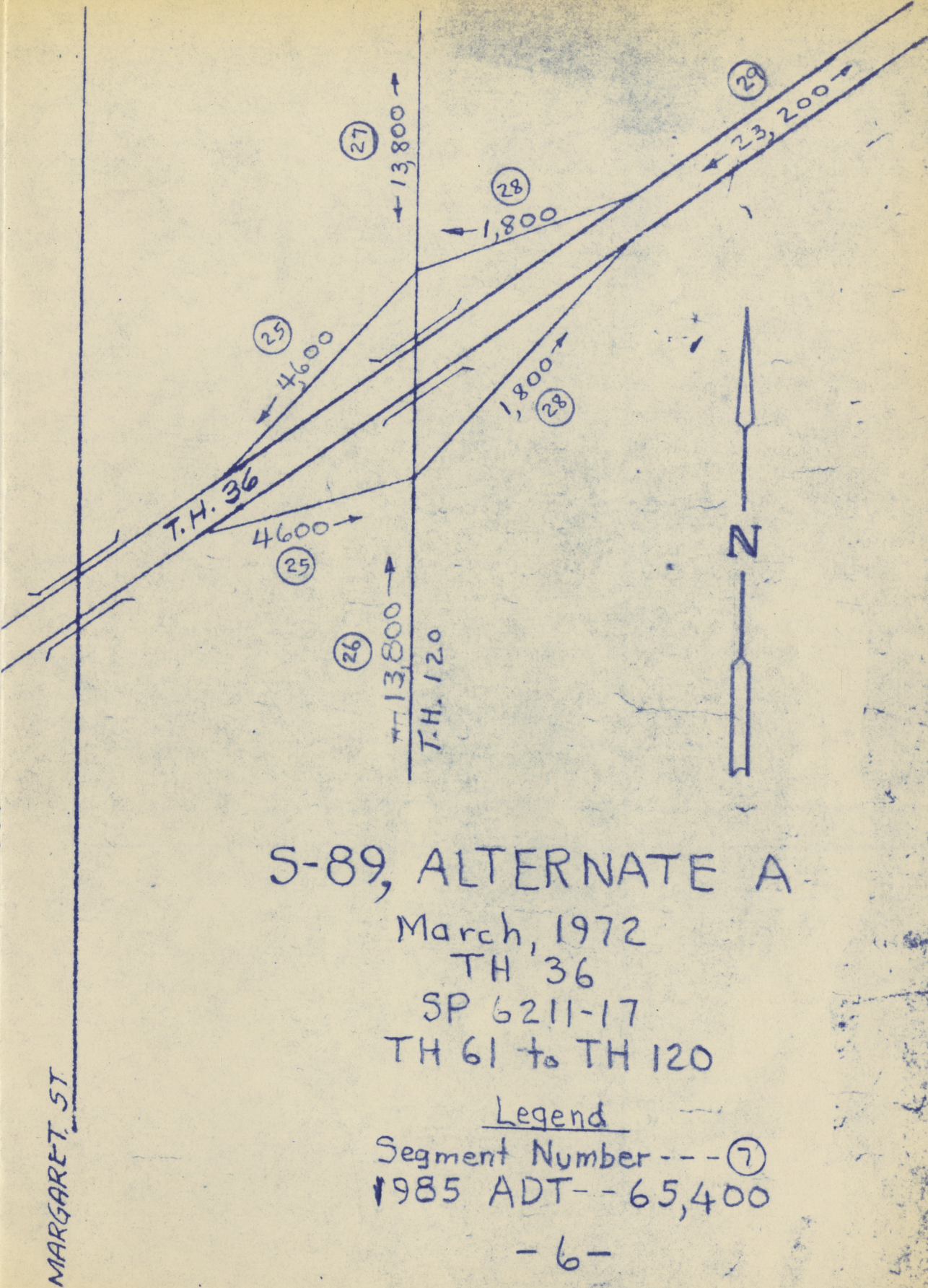
TOTAL ADT ON SEGMENTS 23 THROUGH 29 AS

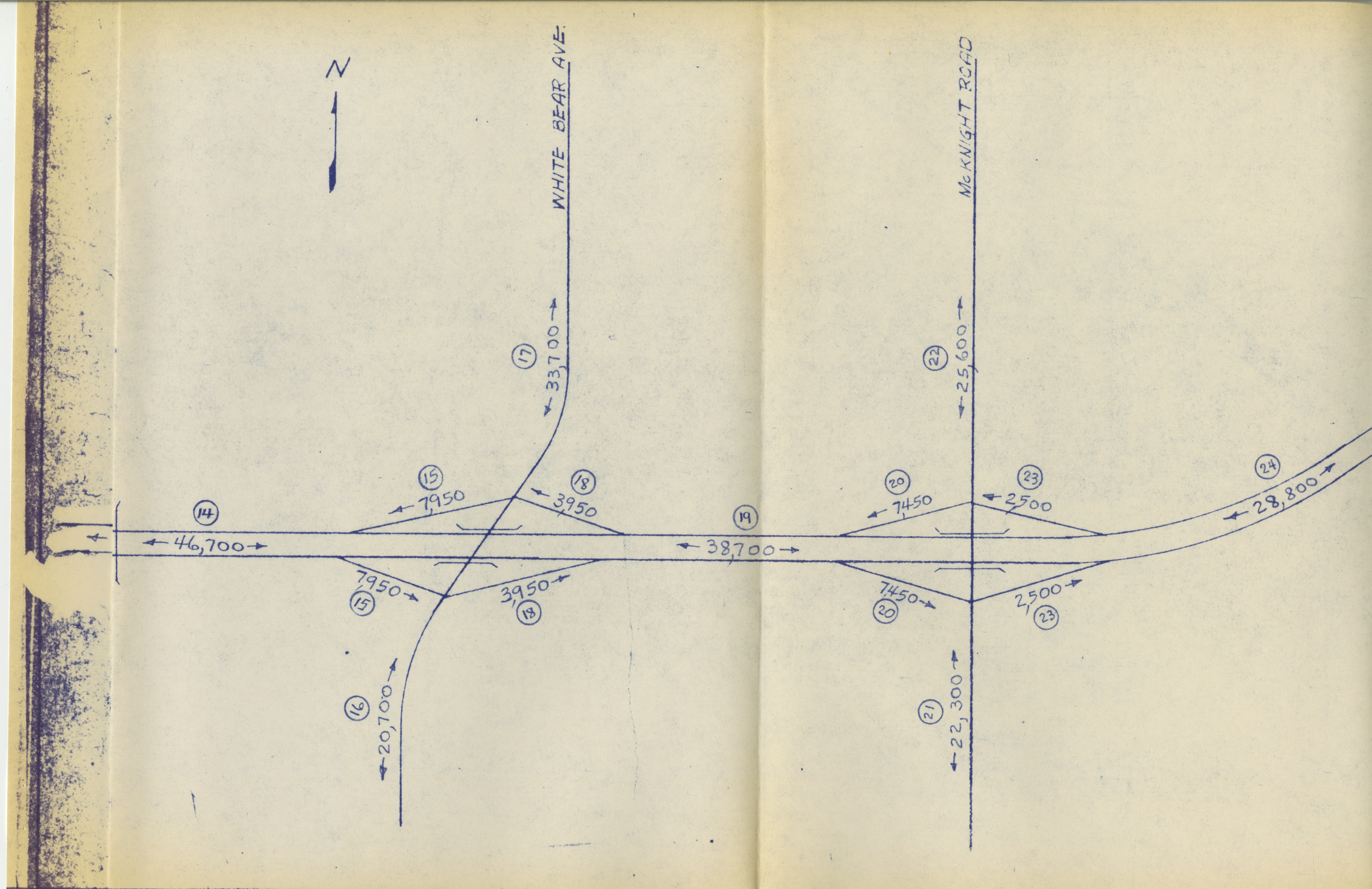
DEFINED ON ATTACHED INDEX MAP on page 6 for Alternate A

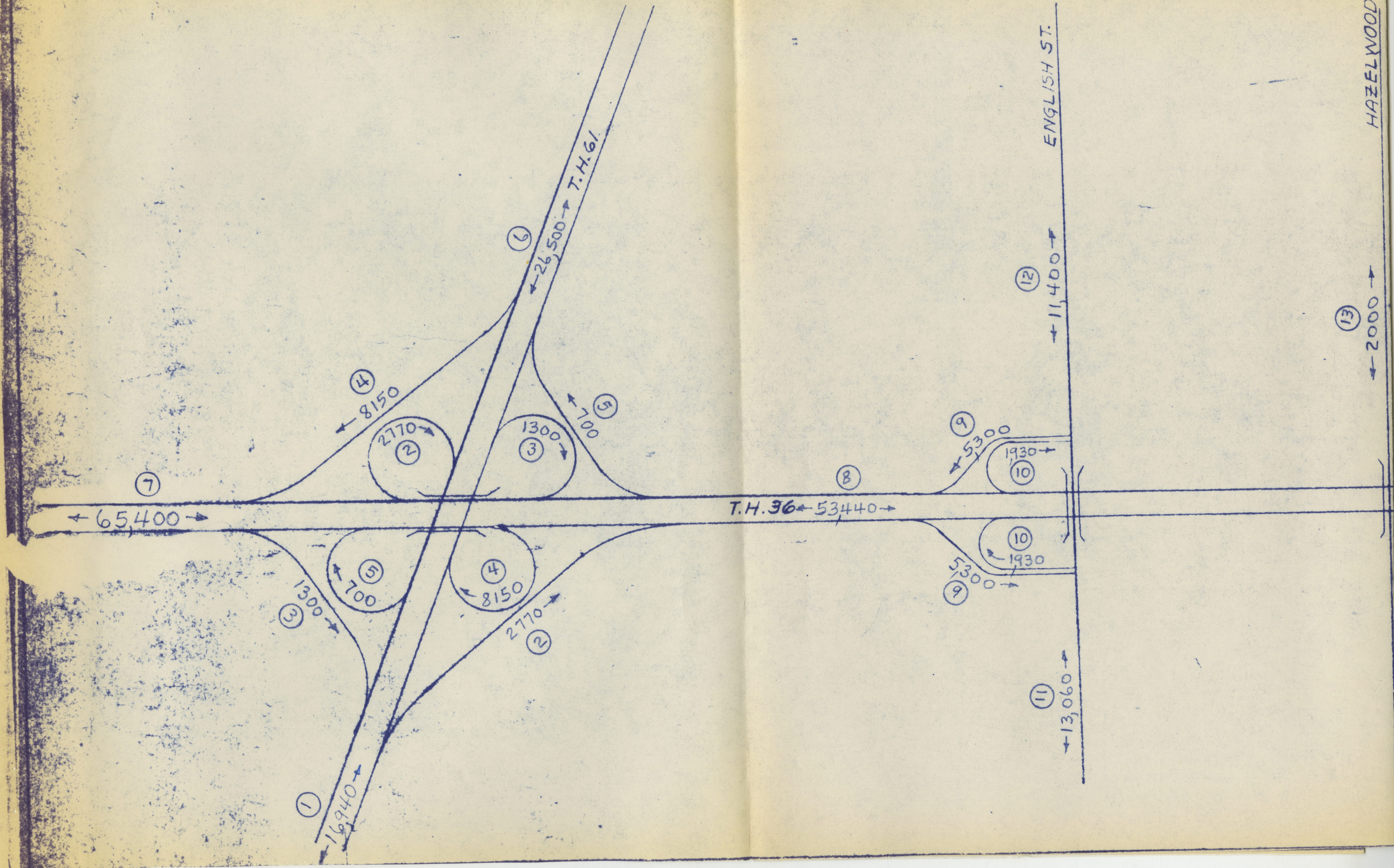
VEHICLE # TYPE	SEGMENT NUMBER													
	23	24	25	26	27	28	29							
0	2414	2774	4434	13190	13192	1701	22282							
1	51	274	55	294	286	43	250							
2	11	80	13	54	52	10	74							
3	2	62	3	14	14	3	62							
4	3	136	7	12	12	5	132							
5	7	416	51	140	150	20	354							
6	12	84	37	96	94	18	46							
TOTAL ADT	2500	28800	4600	13800	13800	1800	23200							
TOTAL H. COMM. ADT	86	1052	166	610	608	99	918							
TOTAL DHV														
DIRECTIONAL DISTRIBUTION														

* VEHICLE TYPE CODE

- 0 = PASSENGER CARS AND 4 TIRE TRUCKS
- 1 = SINGLE UNIT-2 AXLE-6 TIRE TRUCKS
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- 3 = TRACTOR-TRUCK OR SEMI-TRAILER- 3 AXLES
- 4 = TRACTOR-TRUCK OR SEMI-TRAILER - 4 AXLES
- 5 = TRACTOR-TRUCK OR SEMI-TRAILER - 5 AXLES
- 6 = BUSES AND TRUCKS WITH TRAILERS







⑦
← 65,400 →

③
1300 →
⑤
700

①
← 16,940 →

④
8150
②
2770

④
8150
②
2770

③
1300 →
⑤
700

⑥
← 26,500 → T.H. 61

⑧
T.H. 36 ← 53,440 →

⑨
5300
⑩
1930 →

⑪
← 13,060 →

⑫
← 11,400 →

ENGLISH ST.

⑬
← 2000 →

HAZELWOOD AVE.

TRAFFIC ESTIMATE DATA

DESIGN YEAR 1985 PART 1 OF 2

FOR

T.H. 36 S.P. 6211-17 LENGTH -- MILES
COUNTY Ramsey LOCATION T.H. 61 to T.H. 120

BASED ON

1985 ADT FROM TRAFFIC ANALYSIS UNIT

SHOWING

TOTAL ADT ON SEGMENTS 1 THROUGH 11 AS

DEFINED ON ATTACHED INDEX MAP on page 10 for Alternate B

VEHICLE # TYPE	SEGMENT NUMBER										
	1	2	3	4	5	6	7	8	9	10	11
0	19070	2691	2624	8967	671	27716	62974	46516	4586	2557	6570
1	470	55	87	168	24	570	952	600	260	68	290
2	124	12	17	29	4	132	122	62	30	9	50
3	38	1	9	9	--	36	142	103	20	10	18
4	72	2	22	28	--	80	316	220	26	22	32
5	120	5	36	37	--	112	838	702	32	29	38
6	46	4	5	12	1	54	56	32	46	5	62
TOTAL ADT	19940	2770	2800	9250	700	28700	65400	48240	5000	2700	7060
TOTAL H. COMM. ADT	870	79	176	283	29	984	2426	1724	414	143	490
TOTAL DHV											
DIRECTIONAL DISTRIBUTION											

* VEHICLE TYPE CODE

- 0 = PASSENGER CARS AND 4 TIRE TRUCKS
1 = SINGLE UNIT-2 AXLE-6 TIRE TRUCKS
2 = SINGLE UNIT-3 AXLE TRUCKS
3 = TRACTOR-TRUCK OR SEMI-TRAILER- 3 AXLES
- 4 = TRACTOR-TRUCK OR SEMI-TRAILER - 4 AXLES
5 = TRACTOR-TRUCK OR SEMI-TRAILER - 5 AXLES
6 = BUSES AND TRUCKS WITH TRAILERS

TRAFFIC ESTIMATE DATA

DESIGN YEAR 1985 PART 2 OF 2

FOR

T.H. 36 S.P. 6211-17 LENGTH -- MILES
COUNTY Ramsey LOCATION T.H. 61 to T.H. 120

BASED ON

1985 ADT FROM TRAFFIC ANALYSIS UNIT

SHOWING

TOTAL ADT ON SEGMENTS 12 THROUGH 22 AS

DEFINED ON ATTACHED INDEX MAP on page 10 for Alternate A

VEHICLE # TYPE	SEGMENT NUMBER										
	12	13	14	15	16	17	18	19	20	21	22
0	5752	3766	45074	7616	20030	32632	3775	37392	7236	21634	24874
1	164	69	602	154	260	440	84	462	145	436	496
2	48	6	56	8	136	180	24	88	15	58	54
3	14	4	96	12	18	30	2	76	9	24	30
4	28	4	184	25	42	52	6	146	8	28	34
5	32	2	648	121	128	226	20	446	22	68	78
6	62	9	40	14	86	140	39	90	15	52	34
TOTAL ADT	6200	3860	46700	7950	20700	33700	3950	38700	7450	22300	25600
TOTAL H. COMM. ADT	448	94	1626	334	670	1068	175	1308	214	666	726
TOTAL DHV											
DIRECTIONAL DISTRIBUTION											

* VEHICLE TYPE CODE

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TRAFFIC ESTIMATE DATA

DESIGN YEAR 1985 PART 3 OF 3

FOR

T.H. 36 S.P. 6211-17 LENGTH --- MILESCOUNTY Ramsey LOCATION T.H. 61 to T.H. 120

BASED ON

1985 ADT FROM TRAFFIC ANALYSIS UNIT

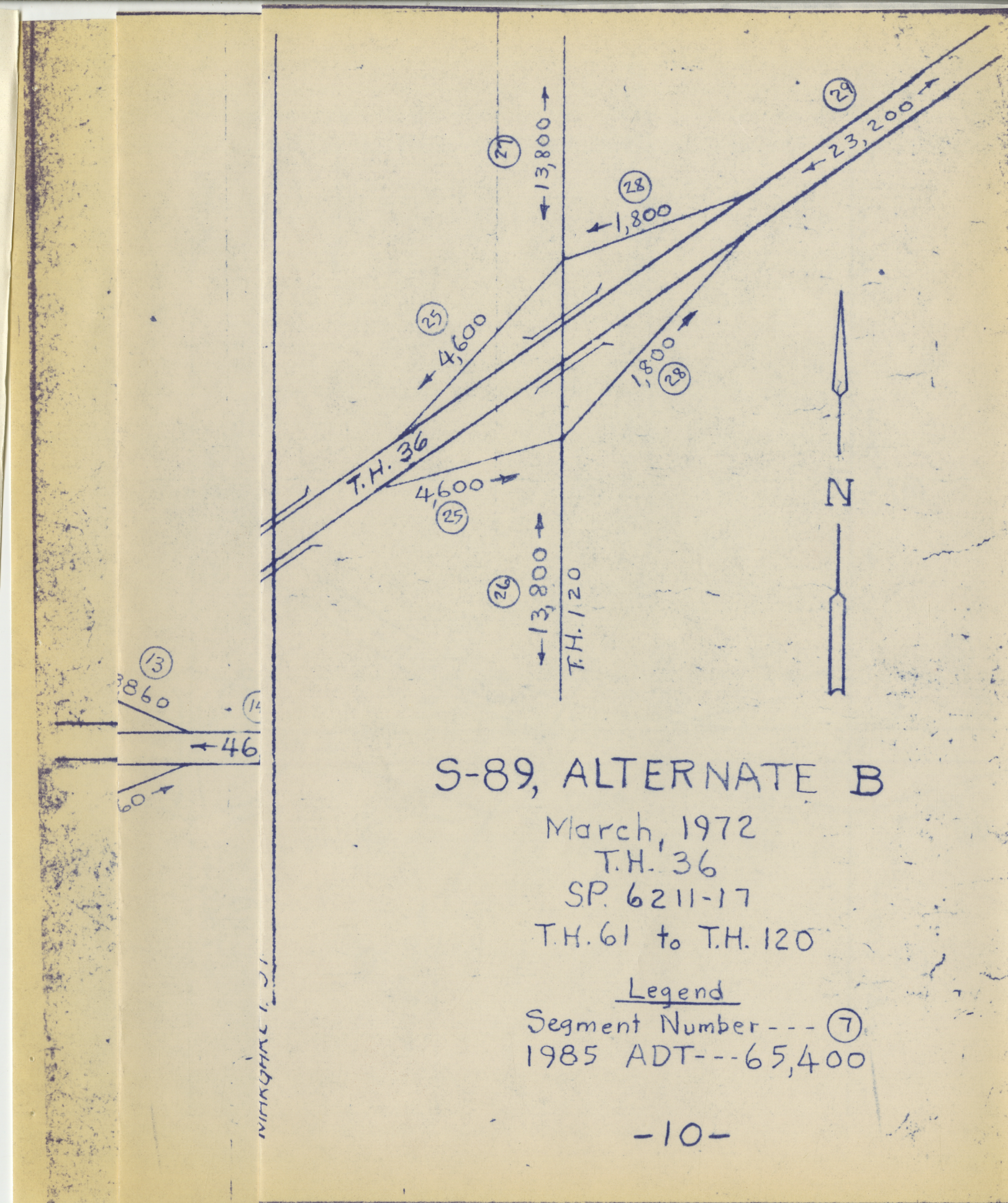
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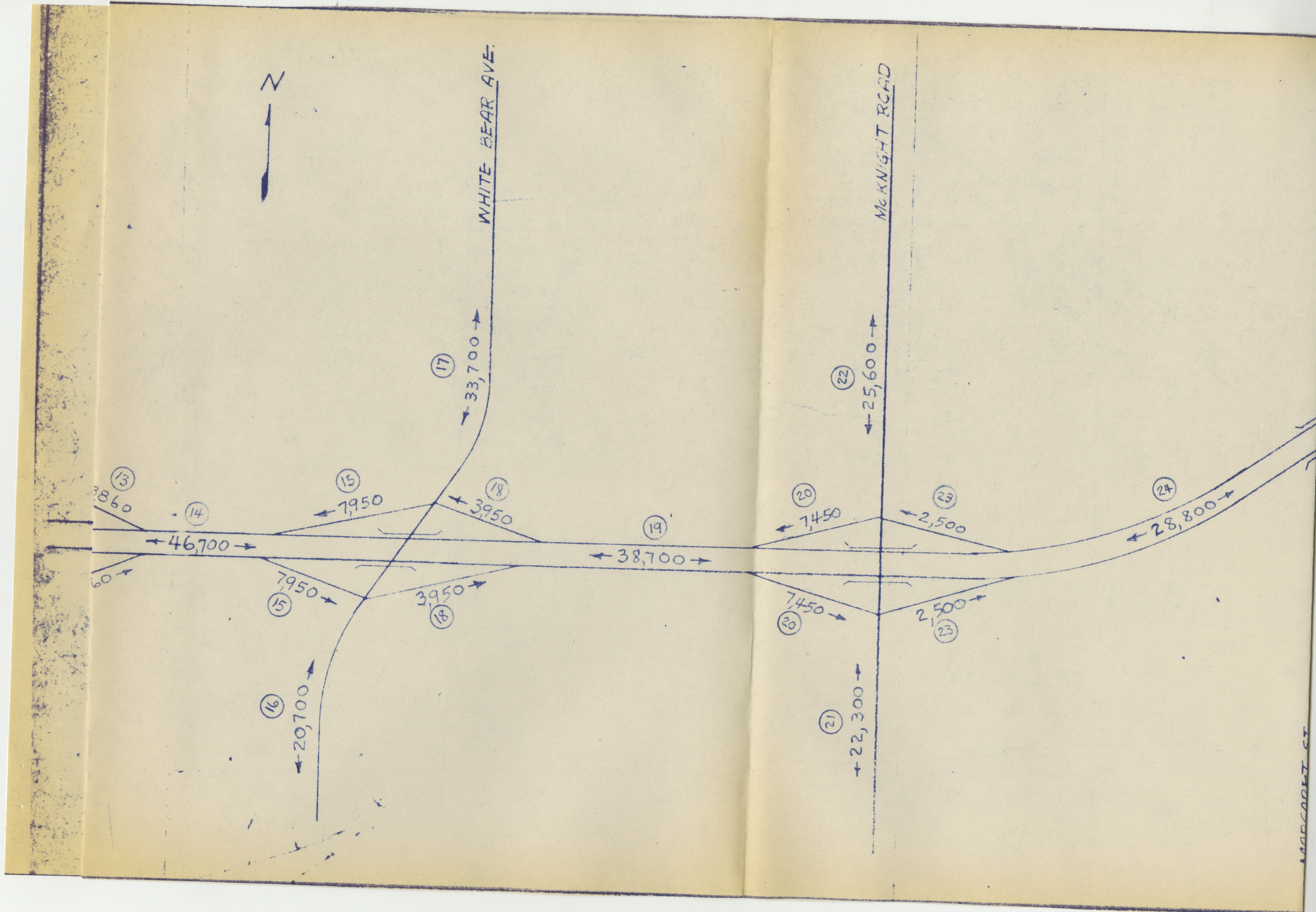
TOTAL ADT ON SEGMENTS 23 THROUGH 29 AS
DEFINED ON ATTACHED INDEX MAP on page 10 for Alternate B

VEHICLE # TYPE	SEGMENT NUMBER											
	23	24	25	26	27	28	29					
0	2414	27748	4434	13190	13192	1701	22282					
1	51	274	55	294	286	43	250					
2	11	80	13	54	52	10	74					
3	2	62	3	14	14	3	62					
4	3	135	7	12	12	5	132					
5	7	416	51	140	150	20	354					
6	12	84	37	96	94	18	46					
TOTAL ADT	2500	28800	4600	13800	13800	1800	23200					
TOTAL H. COMM. ADT	86	1052	166	610	608	99	918					
TOTAL DHV												
DIRECTIONAL DISTRIBUTION												

* VEHICLE TYPE CODE

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 6 = BUSES AND TRUCKS WITH TRAILERS





WHITE BEAR AVE.

McKNIGHT ROAD

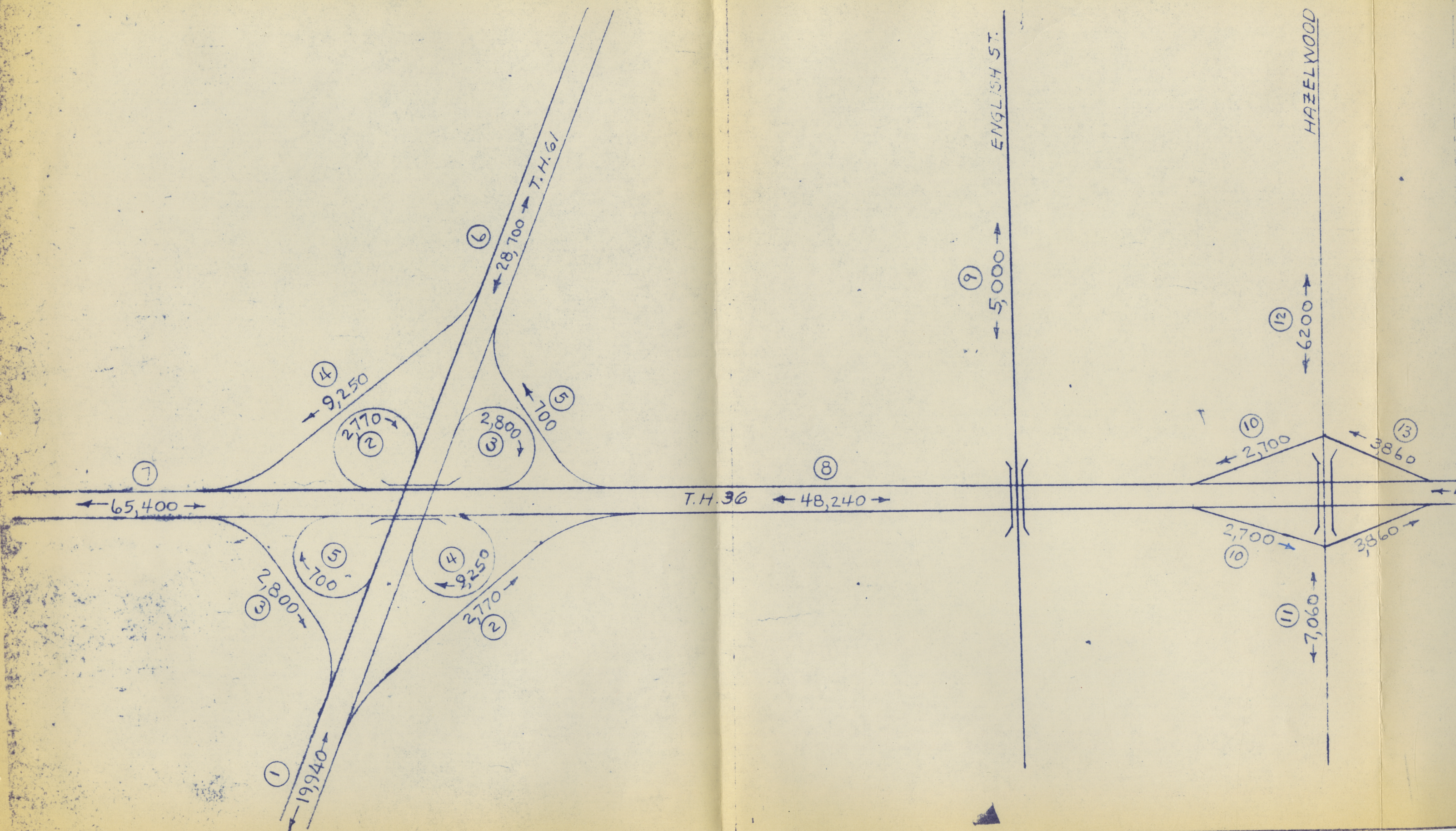
MORCART ST.

Hand-drawn engineering plan view of a road intersection and alignment. The drawing shows a horizontal road segment with several vertical and diagonal branches. Key features include:

- 1. A north arrow pointing towards the top left.
- 2. A vertical road labeled "WHITE BEAR AVE." intersecting the horizontal road.
- 3. A vertical road labeled "McKNIGHT ROAD" intersecting the horizontal road.
- 4. A diagonal road branching off to the bottom left.
- 5. A diagonal road branching off to the bottom right.
- 6. A curved road segment on the far right.
- 7. Numerous stationing points marked with circled numbers (13 through 24) and associated numerical values with arrows indicating direction.
- 8. A vertical line on the far right edge labeled "MORCART ST."

Stationing points and values shown in the drawing:

- Point 13: 3860
- Point 14: 46,700
- Point 15: 7,950
- Point 16: 20,700
- Point 17: 33,700
- Point 18: 3,950
- Point 19: 38,700
- Point 20: 7,450
- Point 21: 22,300
- Point 22: 25,600
- Point 23: 2,500
- Point 24: 28,800



← 65,400 →

⑦

①
← 19,940 →

③
← 2,800 →

⑤
← 700 →

②
← 2,770 →

④
← 9,250 →

②
← 2,770 →

④
← 9,250 →

③
← 2,800 →

⑤
← 700 →

⑥

← 28,700 → T.H. 61

T.H. 36 ← 48,240 →

⑧

⑨

← 5,000 →

ENGLISH ST.

⑩
← 2,700 →

⑪
← 7,060 →

⑫
← 6,200 →

HAZELWOOD AVE.

← 2,700 →

← 3,860 →

← 3,860 →

⑬

Report Preparation Described

The System 14 1985 ADT and DHV for this project in TAS 565-14 dated May, 1968 were increased to include 1985 ADT and DHV expected to be generated by Maplewood Plaza, North St. Paul Target store, and associated residential-industrial development in the area. The results were published in SPAR M-86 in February, 1972.

The vehicle type distributions for TAS 565-14, published in July of 1968 in TAS 3056C-14, were increased to reflect the additional land use described in SPAR M-86. The results and the 1985 ADT in SPAR M-86 constitute the attached report.